

1 This listing of claims will replace all prior versions, and listings, of claims in the
2 application:

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4 **Listing of Claims:**

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6 1. (original) A method for controlling access to a server device by
7 at least one client device that is operatively coupled to the server device through at
8 least one interconnecting network, the method comprising:

9 causing a user-side portion of a network server logic within the server
10 device to selectively specify at least one network from which the user-side portion
11 would accept client device information; and

12 causing a kernel-side portion of the network server logic to accept the client
13 device information only if the client device information has been provided via the
14 specified network.

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16 2. (original) The method as recited in Claim 1, further comprising:
17 if the client device information has not been provided via the specified
18 network, causing the kernel-side portion to reject the client device information and
19 notify the client device in a manner that identifies the rejection.

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21 3. (original) The method as recited in Claim 2, wherein the
22 kernel-side portion notifies the client device using at least one message selected
23 from a group of messages comprising a TCP reset message and an ICMP
24 destination unreachable message, as applicable.

1 4. (original) The method as recited in Claim 1, further comprising:
2 providing a communication socket for use by the kernel-side portion; and
3 causing the kernel-side portion to compare client device information
4 received on the communication socket to the specified network.

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6 5. (original) The method as recited in Claim 1, wherein causing the
7 user-side portion to selectively specify at least one network from which the user-
8 side portion would accept the client device information, further includes causing
9 the user-side portion to selectively specify a plurality of networks from which the
10 user-side portion would accept the client device information; and

11 wherein causing the kernel-side portion to accept the client device
12 information only if the client device information has been provided via the
13 specified network, further includes causing the kernel-side portion to accept the
14 client device information only if the client device information has been provided
15 via at least one of the specified plurality of networks.

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17 6. (original) The method as recited in Claim 1, wherein causing the
18 user-side portion to selectively specify the at least one network from which the user-
19 side portion would accept the client device information further includes
20 having the user-side portion specify at least one local network interface.

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22 7. (original) The method as recited in Claim 1, wherein causing the
23 user-side portion to selectively specify the at least one network from which the user-
24 side portion would accept the client device information further includes
25 having the user-side portion specify at least one IP address.

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3 8. (original) The method as recited in Claim 1, wherein the network
4 server logic is operatively configured to support at least one client-server based
5 process selected from a group of processes comprising a file-sharing
6 communication process, a TCP-based communication process, a UDP-based
7 communication process, a HTTP-based communication process, a digital media
8 based communication process, a DNS-based communication process, and a
9 database related communication process.

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11 9. (original) The method as recited in Claim 1, wherein the user-
12 side portion includes an application-programming interface (API) operatively
13 configured to allow an application to specify the at least one network from which
14 the user-side portion would accept the client device information.

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16 10. (original) The method as recited in Claim 9, wherein the API is
17 further operatively configured to allow the application to specify a listing of
18 networks from which the user-side portion would accept the client device
19 information.

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21 11. (original) The method as recited in Claim 10, wherein the API is
22 further operatively configured to allow the application to selectively modify the
23 listing of networks from which the user-side portion would accept the client device
24 information.

1 12. (original) The method as recited in Claim 1, wherein the kernel-
2 side portion includes a TCP/IP driver.

3 13. (original) A computer-readable medium having computer-
4 executable instructions for performing steps comprising:
5 causing a user-side portion of a network server logic within a server device
6 to selectively specify at least one network from which the user-side portion would
7 accept client device information; and

8 causing a kernel-side portion of the network server logic to accept the
9 client device information only if the client device information has been provided
10 via the specified network.

11 14. (original) The computer-readable medium as recited in Claim 13,
12 further comprising computer-executable instructions for:

13 if the client device information has not been provided via the specified
14 network, causing the kernel-side portion to reject the client device information and
15 notify the client device in a manner that identifies the rejection.

16 15. (original) The computer-readable medium as recited in Claim 14,
17 wherein the kernel-side portion notifies the client device using at least one
18 message selected from a group of messages comprising a TCP reset message and
19 an ICMP destination unreachable message, as applicable.

1 16. (original) The computer-readable medium as recited in Claim 13,
2 further comprising computer-executable instructions for:

3 providing a communication socket for use by the kernel-side portion; and
4 causing the kernel-side portion to compare client device information
5 received on the communication socket to the specified network.

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7 17. (original) The computer-readable medium as recited in Claim 13,
8 wherein causing the user-side portion to selectively specify at least one network
9 from which the user-side portion would accept the client device information,
10 further includes causing the user-side portion to selectively specify a plurality of
11 networks from which the user-side portion would accept the client device
12 information; and

13 wherein causing the kernel-side portion to accept the client device
14 information only if the client device information has been provided via the
15 specified network, further includes causing the kernel-side portion to accept the
16 client device information only if the client device information has been provided
17 via at least one of the specified plurality of networks.

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19 18. (original) The computer-readable medium as recited in Claim 13,
20 wherein causing the user-side portion to selectively specify the at least one
21 network from which the user-side portion would accept the client device
22 information further includes having the user-side portion specify at least one local
23 network interface.

1 19. (original) The computer-readable medium as recited in Claim 13,
2 wherein causing the user-side portion to selectively specify the at least one
3 network from which the user-side portion would accept the client device
4 information further includes having the user-side portion specify at least one IP
5 address.

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7 20. (original) The computer-readable medium as recited in Claim 13,
8 wherein the network server logic is operatively configured to support at least one
9 client-server based process selected from a group of processes comprising a file-
10 sharing communication process, a TCP-based communication process, a UDP-
11 based communication process, a HTTP-based communication process, a digital
12 media based communication process, a DNS-based communication process, and a
13 database related communication process.

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15 21. (original) The computer-readable medium as recited in Claim 13,
16 wherein the user-side portion includes an application-programming interface (API)
17 operatively configured to allow an application to specify the at least one network
18 from which the user-side portion would accept the client device information.

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20 22. (original) The computer-readable medium as recited in Claim 21,
21 wherein the API is further operatively configured to allow the application to
22 specify a listing of networks from which the user-side portion would accept the
23 client device information.

1 23. (original) The computer-readable medium as recited in Claim 22,
2 wherein the API is further operatively configured to allow the application to
3 selectively modify the listing of networks from which the user-side portion would
4 accept the client device information.

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6 24. (original) The computer-readable medium as recited in Claim 13,
7 wherein the kernel-side portion includes a TCP/IP driver.

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9 25. (original) A method for establishing per-socket interface listings,
10 the method comprising the steps of:

11 a) issuing, by a user-side application, at least one network identifier
12 from which the user-side application would accept client device information;

13 b) receiving, by a user-side portion of a network server process, the at
14 least one network identifier;

15 c) issuing, by the user-side portion, the at least one network identifier;
16 and

17 d) receiving, by a kernel-side portion of a network server process, the at
18 least one network identifier.

1 26. (original) An apparatus comprising:

2 memory; and

3 network server logic, operatively coupled to the memory and configurable
4 to support at least one client-server communication session, the network server
5 logic having:

6 a user-side portion that is configured to selectively specify at least one
7 network from which the user-side portion would accept client device information,
8 and

9 a kernel-side portion that is configured to accept the client device
10 information only if the client device information has been provided via the
11 specified network.

12 27. (original) The apparatus as recited in Claim 26, wherein if the
13 client device information has not been provided via the specified network, the
14 kernel-side portion is further configured to reject the client device information and
15 notify the client device in a manner that identifies the rejection.

16 28 The apparatus as recited in Claim 27, wherein the kernel-side portion
17 is configured to notify the client device using at least one message selected from a
18 group of messages comprising a TCP reset message and an ICMP destination
19 unreachable message, as applicable.

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1 29. (original) The apparatus as recited in Claim 26, further
2 comprising:

3 a communication socket for use by the kernel-side portion during the
4 communications session, and wherein the kernel-side portion is further configured
5 to compare client device information received on the communication socket to the
6 specified network.

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8 30. (original) The apparatus as recited in Claim 26, wherein is
9 further configured to selectively specify a plurality of networks from which the
10 user-side portion would accept the client device information; and

11 wherein the kernel-side portion is further configured to accept the client
12 device information only if the client device information has been provided via at
13 least one of the specified plurality of networks.

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15 31. (original) The apparatus as recited in Claim 26, wherein the user-
16 side portion is further configured to specify at least one local network interface.

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18 32. (original) The apparatus as recited in Claim 26, wherein the user-
19 side portion is further configured to specify at least one IP address.

1 33. (original) The apparatus as recited in Claim 26, wherein the
2 communication session is further configured to support at least one communication
3 process selected from a group of communication processes comprising a file-
4 sharing communication process, a TCP-based communication process, a UDP-
5 based communication process, a HTTP-based communication process, a digital
6 media based communication process, a DNS-based communication process, and a
7 database related communication process.

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9 34. (original) The apparatus as recited in Claim 26, wherein the user-
10 side portion includes:

11 an application-programming interface (API) operatively configurable to
12 allow an application to specify the at least one network from which the user-side
13 portion would accept the client device information.

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15 35. (original) The apparatus as recited in Claim 34, wherein the API
16 is further operatively configurable to allow the application to specify a listing of
17 networks from which the user-side portion would accept the client device
18 information.

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20 36. (original) The apparatus as recited in Claim 35, wherein the API
21 is further operatively configurable to allow the application to selectively modify
22 the listing of networks from which the user-side portion would accept the client
23 device information.

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1 37. (original) The apparatus as recited in Claim 26, wherein the
2 kernel-side portion includes a TCP/IP driver.

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